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D10
Cont.

30. (Amended) The method of claim 29, wherein step (c) of applying said first seamless surface comprises a printing operation wherein ink is forced onto the other surfaces.

REMARKS

In view of the above amendments and the following remarks, Applicant respectfully requests reconsideration of this patent application. Claims 1-30 are currently pending.

With this Amendment, Claims 1-3, 10, 15, 18, 26, and 28-30 have been amended and Claims 7, 20-21, 25 and 27 have been deleted.

Amendment to the Specification

The specification has been amended on page 6 to delete the second paragraph (lines 5-6) which read "It still an additional object of the present invention to provide an embossing tool which avoids the limitation of conventional seams on embossing rollers." Similar text already appears on page 5, lines 10-11, so that this text on page 6 is redundant.

The specification has also been amended on page 12 to correct a typographical error by inserting the the word "is" in line 10, and also to delete the word "also" in line 15.

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The specification has also been amended on page 16, lines 12-13, to deleted the phrase "attached hereto as Appendix 1" and to insert the phrase "page 11, and summarized as follows."

The specification has also been amended on page 16, line 14 to page 17, line 2, to change "polimide" to "polyimide" in line 18, and also to paraphrase, as suggested by the Examiner, from the Preliminary Product Bulletin by HD Microsystems™, entitled *Photo Definable Image HD-8000 Series Positive Tone, Aqueous Developable Polyimide*, previously attached as Exhibit 1.

The specification has also been amended on page 17 to delete the second through sixth paragraphs (lines 3-19).

The specification has also been amended on page 18, lines 1-8, to paraphrase, as suggested by the Examiner, from the Preliminary Product Bulletin by HD Microsystems™, entitled *Photo Definable Image HD-8000 Series Positive Tone, Aqueous Developable Polyimide*, previously attached as Exhibit 1.

Amendment to the Claims

Claim 1 has been amended to change "An embossing surface" to "A seamless embossing surface" and to insert "positive tone" between "photodefined and polyimide." This amendment is supported in the specification on page 5, lines 10-11.

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Claim 2 has been amended to correct a typographical error by changing “developable” to “devellopable.”

Claim 3 has been amended to change “photo detection” to “exposure” as suggested by the Examiner.

Claim 10 has been amended to change “an embossing surface” to “a seamless embossing surface,” and to insert “polyimide” between “photo-defined” and “material” in step (a). This amendment is supported in the specification on page 5, lines 10-11, and on page 9, lines 9-16.

Claims 15 and 18 have been amended to change “step (c)” to “step (b).” Claim 18 has also been amended to delete “ii.”

Claim 26 has been amended to change “to a transfer medium” to “via a transfer medium,” and also to insert “comprising a polyimide material” after “transfer medium” in line 2. This amendment is supported in the specification on page 10, lines 10-14, and page 20, lines 3-8.

Claim 28 has been amended in line 1 to change “an embossing surface” to “a seamless embossing surface,” and in step (a) to change “on said embossing surface” to “to form said embossing surface.” This amendment is supported in the specification on page 5, lines 10-11.

Claim 29 has been amended in line 1 to change “a first surface” to “a first seamless surface,” and in step (a) to change “on said first surface” to “to form

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said first surface.” This amendment is supported in the specification on page 5, lines 10-11.

Claim 30 has been amended to recite an ink as suggested by the Examiner, by inserting “wherein ink is forced onto the other surfaces” after “printing operation.” This amended is supported in the specification on page 19, lines 1-6.

Claims 7, 20-21, 25 and 27 have been deleted.

Specification Objection - 35 U.S.C. §112

In paragraph 2 on page 2 of the Office Action, the Examiner has objected to the specification under 35 U.S.C. §112, first paragraph, as based on a disclosure which is not enabling.

The Examiner states that the specification attempts to incorporate essential subject matter by reference to non-U.S. patent literature and that the use of appendices is an improper method of incorporating information into a patent application. The Examiner also states that the Applicant is permitted to paraphrase.

Applicant has amended the specification on page 16 to delete the reference to Appendix 1 and on pages 16-18 to paraphrase the Preliminary Product Bulletin by HD Microsystems™, previously attached as Appendix 1.

Claim Rejections - 35 U.S.C. §112

In paragraph 4 on page 3 of the Office Action, the Examiner has rejected Claims 2-9, 15, 18-21, and 25-30 under 35 U.S.C. §112, second paragraph,

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as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Regarding Claim 2, the Examiner states that, “devepeable” should read --developable--. Applicant has amended Claim 2 as suggested by the Examiner.

Regarding Claim 3, the Examiner states that “photo detection” should be replaced with --exposure.-- Applicant has amended Claim 3 as suggested by the Examiner.

Regarding Claim 7, the Examiner states that the claim should indicate that photodefined polyimide is derived from a positive acting photo-defined polyimide. Claim 7 has been deleted.

Regarding Claims 15 and 18, the Examiner states that step (c) in Claim 10 is not a curing step. Claims 15 and 18 have each been amended to change “step (c)” to “step (b).”

Regarding Claims 20-21, the Examiner states that the claims should indicate that these steps result in a duplicate stamper. Claims 20 and 21 have been deleted.

Regarding Claim 25, the Examiner states that Claim 25 is incongruent with Claim 10. Claim 25 has been deleted.

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Regarding Claim 26, the Examiner states that the claim should indicate that the transfer medium is cast onto a surface, the data is transferred into the transfer medium and then the transfer medium is used to emboss or stamp the data into another surface. Claim 26 has been amended to recite that the data is transferred from a first surface to other surfaces “via” a transfer medium.

Step (a) of Claim 26 recites “casting said transfer medium on a surface containing said data.” Applicant’s specification on page 10, lines 12-14, as amended on 14 November 2000, states “Virtually any kind of casting technique can be used with the polyimide material in the mold or as the mold, examples of which are described *infra*.” In addition, on page 20, as amended on 14 November 2000, lines 3-8, specifies that:

The polyimide material can be used in a cast or can be formed as a cast for the casting of other materials. The defraction grating being transferred in this way is present inside the cast as the material to be cast is poured in and then hardened to take the shape of the polyimide material and/or the relief of the defraction grating present in the cast.

Therefore, Applicant respectfully disagrees that a separate step is required to recite “the data is transferred into the transfer medium.”

Regarding Claims 28-29, the Examiner indicates that the polyimide is the embossing surface and that each of these claims should reflect this. Claims 28 and 29 have each been amended in step (a) to recite curing a polyimide material “to form” the embossing surface.

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Regarding Claim 30, the Examiner indicates that printing cannot be achieved without reciting an ink. Claim 30 has been amended to recite an ink as suggested by the Examiner.

Claim Rejections - 35 U.S.C. §102

a) IBM Technical Disclosure Bulletin

In paragraph 7 on pages 4-5, the Examiner has rejected Claims 1-3, 5-7 and 9 under 35 U.S.C. §102(b) as being anticipated by IBM Technical Disclosure Bulletin. This rejection is respectfully traversed.

Claim 1 has been amended to recite a “seamless” embossing surface and a “positive tone” polyimide material.

The IBM Technical Disclosure Bulletin teaches the use of thermal heating of a photosensitive negative polyimide, to replace “wet developing.” Although the Examiner states that based on the post-baking and development, the surface is sufficiently hardened for embossing or printing, the IBM Technical Disclosure Bulletin does not teach a “seamless embossing surface” which is “configured for transferring data to other surfaces.” In addition, the IBM Technical Disclosure Bulletin does not teach the use of a positive tone polyimide material. The negative polyimide material described in the IBM Technical Disclosure Bulletin is apparently for use in the semiconductor industry. The IBM Technical Disclosure Bulletin does not teach or suggest any type of embossing or transfer of data.

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Therefore, the 35 U.S.C. §102(b) rejection should therefore be withdrawn with respect to Independent Claim 1, as amended. Claims 2-3, 5-7 and 9 ultimately depend on Claim 1, as amended. Therefore, the 35 U.S.C. §102(b) rejection should also be withdrawn with respect to these claims.

b) JP 59-123836

In paragraph 8 on page 5, the Examiner has rejected Claims 28-30 under 35 U.S.C. §102(b) as being anticipated by or in the alternative as obvious over JP 59-123836. This rejection is respectfully traversed.

Claims 28 and 29 have been amended to recite a “seamless” embossing surface.

JP 59-123836 teaches a polyimide resin used to form a printing master plate. A “seamless” embossing surface does not apply to a printing plate. In addition, JP 59-123836 does not disclose or suggest a seamless embossing surface.

Therefore, the 35 U.S.C. §102(b) rejection should therefore be withdrawn with respect to Independent Claim 28 and 29, as amended. Claim 30, as amended, depends from Claim 29. Therefore, the 35 U.S.C. §102(b) rejection should also be withdrawn with respect Claim 30.

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c) Schlesinger et al. (U.S. Patent 4,054,635)

In paragraph 9 on page 5, the Examiner has rejected Claims 10, 16, 19, 20, 22 and 24-26 under 35 U.S.C. §102(b) as being anticipated by Schlesinger et al. (U.S. Patent 4,054,635). This rejection is respectfully traversed.

Independent Claim 10 has been amended to recite a “seamless” embossing surface and a photo-definable “polyimide” material. Independent Claim 26 has been amended to recite a transfer medium “comprising a polyimide material.”

Although Schlesinger et al. teaches the making of impression images using the hologram or photoresists image directly, (Col. 15, lines 12-24) it does not teach the use of a photo-definable polyimide material. Schlesinger et al. also does not disclose or suggest a seamless embossing surface.

Therefore, the 35 U.S.C. §102(b) rejection should therefore be withdrawn with respect to Independent Claims 10 and 26, as amended. Claims 16, 19, 20, 22, 24 and 25 depend ultimately from Claim 10, as amended. Therefore, the 35 U.S.C. §102(b) rejection should also be withdrawn with respect these claims.

d) Shvartsman (U.S. Patent 5,279,689)

In paragraph 10 on page 6, the Examiner has rejected Claims 10, 16, 19, 22 and 24-26 under 35 U.S.C. §102(b) as being anticipated by Shvartsman (U.S. Patent 5,279,689). This rejection is respectfully traversed.

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Independent Claim 10 has been amended to recite a “seamless” embossing surface and a photo-definable “polyimide” material. Independent Claim 26 has also been amended to recite a transfer medium “comprising a polyimide material.”

Claim 10 has been amended to recite a “polyimide material.” Claim 26 has been amended to recite that a transfer medium comprises a polyimide material.

Although Svartsman teaches casting, it does not teach the use of a photo-definable polyimide material for use as a material to be cast.

Therefore, the 35 U.S.C. §102(b) rejection should therefore be withdrawn with respect to Independent Claims 10 and 26, as amended. Claims 16, 19, 22, 24 and 25 depend ultimately from Claim 10, as amended. Therefore, the 35 U.S.C. §102(b) rejection should also be withdrawn with respect these claims.

e) Nakano et al. (U.S. Patent 4,558,117)

In paragraph 11 on page 6, the Examiner has rejected Claims 1-6 under 35 U.S.C. §102(b) as being anticipated by Nakano et al. (U.S. Patent 4,558,117). This rejection is respectfully traversed.

Claim 1 has been amended to recite a “seamless” embossing surface and a “positive tone” polyimide material.

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Nakano et al. teaches the use of photosensitive polyimide resin in the context of semiconductors. However, Nakano et al. does not teach a “seamless” embossing surface.

Therefore, the 35 U.S.C. §102(b) rejection should therefore be withdrawn with respect to Independent Claim 1, as amended. Claims 2-6 ultimately depend on Claim 1, as amended. Therefore, the 35 U.S.C. §102(b) rejection should also be withdrawn with respect to these claims.

Claim Rejections - 35 U.S.C. §103

a) Sassmannhausen et al. (U.S. Patent 5,104,768)

In paragraph 12 on page 6 of the Office Action, the Examiner has rejected Claims 1-7 and 28-30 under 35 U.S.C. §103(a) as being unpatentable over Sassmannhausen et al. (U.S. Patent 5,104,768). This rejection is respectfully traversed.

Claims 1, 28 and 29 have been amended to recite a “seamless” embossing surface.

The Examiner states that Sassmannhausen et al. teaches the use of positive polyimide resists for fabricating relief structures useful in fabricating microelectronics and printing plates, and that it would have been obvious to use the positive acting polyimide compositions to form printing plates. However, a “seamless” embossing surface does not apply to a printing plate.

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Therefore, the 35 U.S.C. §103(a) rejection should therefore be withdrawn with respect to Independent Claims 1, 28 and 29 as amended. Claims 2-6 ultimately depend on Claim 1, as amended, and Claim 30 depends from Claim 29 as amended. Claim 7 has been deleted. Therefore, the 35 U.S.C. §102(b) rejection should also be withdrawn with respect to these claims.

b) Mueller et al. (U.S. Patent 4,927,736)

In paragraph 13 on page 7 of the Office Action, the Examiner has rejected Claims 1-7 and 28-30 under 35 U.S.C. §103(a) as being unpatentable over Mueller et al. (U.S. Patent 4,927,736). This rejection is respectfully traversed.

Claims 1, 28 and 29 have been amended to recite a “seamless” embossing surface.

The Examiner states that Mueller et al. teaches the use of positive polyimide resists for fabricating relief structures useful in fabricating microelectronics and printing plates, and that it would have been obvious to use the positive acting polyimide compositions to form printing plates. However, a “seamless” embossing surface does not apply to a printing plate.

Therefore, the 35 U.S.C. §103(a) rejection should therefore be withdrawn with respect to Independent Claims 1, 28 and 29 as amended. Claims 2-6 ultimately depend on Claim 1, as amended, and Claim 30 depends from Claim 29

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as amended. Claim 7 has been deleted. Therefore, the 35 U.S.C. §102(b) rejection should also be withdrawn with respect to these claims.

c) Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al. JP 08-039572 and Sassmannhausen et al. (U.S. Patent 5,104,768)

In paragraph 14 on page 7 of the Office Action, the Examiner has rejected Claims 1-20, 22 and 24-30 under 35 U.S.C. §103(a) as being unpatentable over either Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al. JP 08-039572 and Sassmannhausen et al. (U.S. Patent 5,104,768). This rejection is respectfully traversed.

The arguments presented above with respect to the Schlesinger et al., Shvartsman, and Sassmannhausen et al. and Independent claims 1, 10, 26, 28 and 29, as amended, are equally applicable to this rejection.

The Examiner states that Kataoka et al. JP 08-039572 teaches the use of a patterned polyimide on the interior surface of a mold. Independent claims 1, 10, 28 and 29 are not directing to a molding or casting process. Furthermore, Kataoka et al., and Saaamannhausen et al. alone or in combination with either Schlesinger et al. or Shvartsman do not teach or suggest a seamless embossing surface as recited in Applicant's claims.

For these reasons, the 35 U.S.C. §103(a) rejection should be withdrawn.

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d) Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al. JP 08-039572 and Sassmannhausen et al. (U.S. Patent 5,104,768), and further in view of Mizuno (U.S. Patent 6,324,329) and the IBM Technical Disclosure Bulletin

In paragraph 15 on page 8 of the Office Action, the Examiner has rejected Claims 1-20, 22 and 24-30 under 35 U.S.C. §103(a) as being unpatentable over either Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al. JP 08-039572 and Sassmannhausen et al. (U.S. Patent 5,104,768), and further in view of Mizuno (U.S. Patent 6,324,329) and the IBM Technical Disclosure Bulletin. This rejection is respectfully traversed.

The arguments presented above with respect to the Schlesinger et al., Shvartsman, Kataoka et al. JP-039572, Sassmannhausen et al., and the IBM Technical Disclosure Bulletin and Independent claims 1, 10, 26, 28 and 29, as amended, are equally applicable to this rejection.

The Examiner states that Mizuno teaches molding gratings of polyimide. Independent claims 1, 10, 28 and 29 are not directing to a molding or casting process. Furthermore, Mizuno and the IBM Technical Disclosure Bulletin, alone or in combination with Schlesinger et al., Shvartsman, and Kataoka and Sassmannhausen do not teach or suggest a seamless embossing surface as recited in Applicant's claims.

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e) Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al. JP 08-039572 and Sassmannhausen et al. (U.S. Patent 5,104,768), and further in view of JP 01-142077 and/or De Graaf et al. (U.S. Patent 5,149,607)

In paragraph 16 on page 8 of the Office Action, the Examiner has rejected Claims 1-22 and 24-30 under 35 U.S.C. §103(a) as being unpatentable over either Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al. JP 08-039572 and Sassmannhausen et al. (U.S. Patent 5,104,768), and further in view of JP 01-142077 and/or De Graaf et al. (U.S. Patent 5,149,607). This rejection is respectfully traversed.

The arguments presented above with respect to the Schlesinger et al., Shvartsman and Kataoka et al. JP-039572, and Sassmannhausen et al., and Independent claims 1, 10, 26, 28 and 29, as amended, are equally applicable to this rejection.

The Examiner states that JP-01142077 teaches the formation of stampers by electroplating with either nickel or chromium and that De Graaf et al. teaches a resist used as a matrix for embossing or molding where the resist is coated with a thin film of Al or Cr. The Examiner further states that it would have been obvious to modify the process of either Schlesinger or Shvartsman in view of Kataoka and Sassmannhausen by using chrome as the electroformed metal rather than nickel based upon the disclosure of equivalence by JP 01-142077 and or coating the surface of the resist with thin coatings of metals either to provide a conductive

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surface for the electroforming as taught by JP 01-142077 or to provide a more robust surface for stamping as taught by De Graaf.

In addition, Claim 18, not Independent claims 1, 10, 28 and 29, is directed to applying a coating of metal over the polyimide material. Furthermore, JP 01-142077 and/or De Graaf, et al. each either alone or in combination with Schlesinger et al., Shvartsman, and Kataoka et al. and Sassmannshausen does not teach or suggest a seamless embossing surface as recited Applicant's claims.

f) Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al JP 08-039572 and Sassmannshausen et al. (U.S. Patent 5,104,768), and further in view of JP 01-142077 and/or De Graaf et al. (U.S. Patent 5,149,607), and Abraham (U.S. Patent 5,452,282)

In paragraph 17 on page 9 of the Office Action, the Examiner has rejected Claims 1-30 under 35 U.S.C. §103(a) as being unpatentable over either Schlesinger et al. (U.S. Patent 4,054,635) or Shvartsman (U.S. Patent 5,279,689) in view of Kataoka et al. JP 08-039572 and Sassmannshausen et al. (U.S. Patent 5,104,768), and further in view of JP 01-142077 and/or De Graaf et al. (U.S. Patent 5,149,607), and Abraham (U.S. Patent 5,452,282). This rejection is respectfully traversed.

The arguments presented above with respect to the Schlesinger et al., Shvartsman and Kataoka et al. JP-039572, and Sassmannshausen et al., JP 01-

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142077 and De Graaf, et al., and Independent claims 1, 10, 26, 28 and 29, as amended, are equally applicable to this rejection.

The Examiner states that Abraham teaches the formation of dot matrix gratings or regular gratings in photoresists and the use of these as stampers, and also that it would have been obvious to use the processes of Schlesinger et al. or Shvartsman combined with Kataoka and Sassmannshausen and JP 01-142077 and/or De Graaf, such as dot matrix holograms as the image to be formed in the stampers based upon the teachings of the formation of these holograms in stamper surfaces by Abraham.

Abraham, JP 01-142077 and/or De Graaf et al., alone or in combination with Schlesinger or Shvartsman, and Kataoka and Sassmannshausen, do not teach or suggest a seamless embossing surface as recited in Applicant's claims.

Conclusion

Applicants intend to be fully responsive to the outstanding Office Action. If the Examiner feels that any issues remain unresolved, Applicants' attorney respectfully requests a telephone interview with the Examiner. The undersigned can be reached at (847) 490-1400.

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Applicants sincerely believe that this patent application is now in condition for allowance and, thus, respectfully request allowance.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Please replace the second paragraph (lines 9-15) on page 12 with the following amended paragraph:

The aforementioned polyimide material is positive tone or positive acting and can be developed with an aqueous solution. However, this is merely one example of the type of polyimide material that can be used with the present invention. For example, a negative tone or negative acting polyimide can also be used depending upon the exact implementation of data transfer to which the material will be put. Also, the polyimide material that is developed with non-aqueous solutions can [also] be used for purposes of the present invention.

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Please replace the second paragraph on page 16 (lines 8-13) with the following amended paragraph:

After being profiled by the light from laser 6, and developed, the polyimide coating 4, arranged on roller 3 is heat cured, for example in another oven 7. The curing takes place according to the parameters specified in the Preliminary Product Bulletin by HD Microsystems™, entitled *Photo Definable Image HD-8000 Series Positive Tone, Aqueous Developable Polyimide*[, attached hereto as Appendix 1], page 11, and summarized as follows.

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Please replace the paragraph at page 16, line 14 to page 17, line 2, with the following amended paragraph:

Curing the polyimide film involves the removal of the solvent carrier or other volatiles from the layer and the imidization or hardening of the polymer into an intractable polyimide film. This curing process is typically done in steps. Hot plates or an oven are commonly used for the initial heat treatment or bake (Figure 1(b)) after the [polimide] polyimide application. The initial [application can range] heat treatment can be performed at less than 150°C, desirably from 50°C to 150°C on one or more in-line hot plates or in the oven. A furnace or programmable oven is used for the final cure (Figure 1(d)). Final curing is usually done between 280°C-400°C, desirably about 350°C, depending on the application.

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Please replace the first paragraph on page 18 (lines 1-8) with the following amended paragraph:

[throughput and cured film properties. A basic cure schedule is given for a typical “single-mask” stress buffer application:] The final curing process should be performed under a nitrogen atmosphere (oxygen concentration < 100 ppm), with or without a partial vacuum, and should follow the following steps: load the roller 3 with the polyimide coating 4 into oven 7 [or furnace] at < 150°C; [ramp from loading] increase the temperature to 350°C over a 60 minute period; hold at 350°C for 30 minutes; and[], [substrates can be] unload[ed] the roller 3 with the polyimide coating 4 from oven 7 either immediately or allow[ed] it to cool down first. It should be noted that the curing can also be done in an oven without the special atmosphere. The selection of oven atmosphere depends upon a number of factors, such as the size of the area of the polyimide to be cured, the thickness of the final polyimide coating, and [the] other curing factors.

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In the Claims:

1. (Amended) [An] A seamless embossing surface configured for transferring data to other surfaces, said embossing surface consisting of a photodefined positive tone polyimide material.

2. (Amended) The embossing surface of claim 1, wherein said polyimide is aqueous [developeable] developable.

3. (Amended) The embossing surface of claim 2, wherein said data is transferred to said embossing surface by [photo detection] exposure.

10. (Amended) A method of embossing data from [an] a seamless embossing surface to other surfaces, said method consisting of the steps of:

(a) exposing a photo-definable polyimide material to EMF radiation defining said data;

(b) curing said phot-definable material to achieve an embossing surface of a selected hardness; and,

(c) using said embossing surface to emboss said data onto said other surfaces.

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15. (Amended) The method of Claim 10, wherein step (b) [(c)] of curing comprises heating said photo-definable material.

18. (Amended) The method of Claim 10, wherein step (b) [(c)] comprises a preliminary substep of:

[ii] applying a coating of metal over said polyimide material.

26. (Twice Amended) A method of transferring data from a first surface to other surfaces [to] via a transfer medium comprising a polyimide material, said method comprising the steps of:

(a) casting said transfer medium on a surface containing said data; and,

(b) using said transfer medium to transfer said data to said other surfaces.

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28. (Amended) A method of embossing data from [an] a seamless embossing surface to other surfaces, said method comprising the steps of:

- (a) curing a polyimide material [on] to form said embossing surface;
- (b) exposing said embossing surface to EMF radiation defining said data; and,
- (c) applying said embossing surface to transfer data to said other surfaces.

29. (Amended) A method of transferring data from a first seamless surface to other surfaces, said method comprising the steps of:

- (a) curing a polyimide material [on] to form said first seamless surface;
- (b) exposing said first seamless surface to be profiled by an external manipulation corresponding to said data; and,
- (c) applying said first seamless surface to apply said data to said other surfaces.

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30. (Amended) The method of claim 29, wherein step (c) of applying said first seamless surface comprises a printing operation wherein ink is forced onto the other surfaces.